Indianapolis

Center of Excellence

Director: Bradley N. Doebbeling, MD, MSc

Executive Summary for Fiscal Year 2008

Summary

Center Mission

Our MISSION is advancing the science of transforming the healthcare system, both within and outside the VA health care system, to deliver consistently high quality care. Our VISION is to become the leading national resource for studying and disseminating effective approaches to health system improvement. Our STRATEGY is to partner with managers, clinicians, patients and other investigators in interdisciplinary teams to innovate, conduct research, and drive broad scale adoption of changes to foster health system improvement.

Our research priorities are to: 1) Develop, apply, and spread models of care that are safe, effective, relationship-centered, timely, efficient, and equitable; 2) Identify and disseminate effective approaches for organizational change and redesign; 3) Implement, evaluate, and disseminate systems interventions, considering individual, relational, and organizational factors, to transform care delivery; and 4) Implement and integrate health informatics into improved work processes and care delivery.

Collaborating Institutions

Indiana University Center for Health Services and Outcomes Research

Indiana University School of Medicine, Department of Medicine

Regenstrief Institute, Inc.

Regenstrief Center for Healthcare Engineering

Indiana University-Purdue University-Indianapolis (IUPUI), School of Liberal Arts, School of Science

Purdue University

Summary of Center Activities

Our Center is a local, regional and national resource to help leverage the VA's investment in healthcare quality improvement, information technology, and reengineering to ensure high quality, safe and effective routine medical care. In addition, the Center provides interdisciplinary postdoctoral training in health services research, medical informatics and patient safety, focused on implementation science, system redesign, and transformation.

The CIEBP is growing and diverse, however, all center research studies share a common goal of fostering system change and improving care delivery, both within and outside the VA. Faculty areas of expertise include health services research, applied informatics, human factors engineering, healthcare engineering, simulation and modeling, patient safety, preventive services, chronic and mental illness, technology evaluation, organizational studies, process innovation, clinical epidemiology, survey research, clinical trials, biostatistics, behavioral science, medical sociology, patient-provider communication, self-management, recovery models, and rehabilitation research.

Our HSR&D research foci include the following content areas: cancer care, pain and symptoms management, severe mental illness, stroke quality, and patient safety. The center is further nationally recognized for its work in implementation science research and healthcare informatics research, which function as cross-cutting themes across these content areas.

In FY 08, CIEBP core and affiliate investigators were involved in 100 total research projects based primarily at the COE. Total current year research funding is $ 948,037 in VA HSR&D IIR funding. Currently we have 4 funded HSR&D IIR/SDRs underway: 1) IAC 05-254- Illness Management and Recovery for Veterans with Severe Mental Illness (PI: Salyers); 2) IAB-05-297-Teaching Others tO Live with Stroke (TOOLS) (PI: Damush); 3) IMV 04-096 (Implementation Evidence in the Detection and Treatment of Post-stroke Depression) (PI: Williams); 4) IIR-06-233-2 “Diagnosis and Treatment of Sleep Apnea in Cerebrovascular Disease” (PI: Bravata). Four additional VA HSR&D IIRs have received fundable scores: 1) “IAC 06-049 “Simulation-Based Planning Model for Mental Health Services” (PI: Doebbeling); 2) “Improving Transfers of Care in VA Nursing and Medical Services” (PI: Frankel); 3) “Stepped Care to Optimize Pain Care Effectiveness (SCOPE) (PI: Kroenke); and 4) IIR 08-324-1 “Mechanisms of Patient Activation and Self-Management in Schizophrenia” (PI: Salyers). There are also currently two additional VA RR&D merit review funded studies: 1) “Effectiveness of Stepped Care for Chronic Pain (ESCAPE) in Iraq/Afghanistan Veterans Trial (PI: Bair); and 2) “Home-based telehealth stroke study: A randomized trial for veterans” (PI: Chumbler).

In addition to these VA Merit Review funded studies, the COE has multiple ongoing research career development awards (RCDAs) . The COE currently has three active RCDAs that include three HSR&D RCDAs (Bair, Zillich, Haggstrom) and a RR&D RCDA (Schmid). A fourth HSR&D RCDA (Krebs) and a HSR&D CDTA (Bair) both recently received fundable scores. Total active VA HSR&D projects in early FY 09 will include at least seven IIRs, resulting in six HSR&D funded PIs. Furthermore, over this same period, there will be four RCDAs, with an additional CDTA-2 award.

In addition to this funding success, other important system improvements and key impacts of the COE include:

•Selection to participate in the VA Consortium for Healthcare Informatics (CHIR) (Doebbeling) funding to lead an applied project related to data mining for methicillin resistant infections (MRSA) as part of VA RR&D’s national CHIR.

•The implementation of a human computer interaction and informatics laboratory to investigate the usability of clinical decision support tools and new informatics R&D to support the reengineering of the VA's information system.

•VHA leadership on a knowledge management portal research collaborative (VA, DoD, Kaiser, Partners, and Regenstrief Institute, Inc), sponsored by DoD, American Medical Informatics Association (AMIA) and AHRQ, to foster innovations and effective spread of clinical decision support.

•Healthcare informatics projects initiated in human computer interaction, clinical decision support, data mining, electronic text de-identification, simulation, visualization of data, and creation of a performance measure dashboard.

•The Stroke QuERI successfully partnering with OQP, PCS, ONS to plan, collect, and score data for 14 inpatient stroke quality metrics in 5,000 veterans with a VA stroke admission in FY07 and presenting these data nationally to CMOs and QMOs and to individual facilities.

•The Stroke QUERI developed a Lean/System Redesign training program and improved dysphagia screening processes with clinical teams at 7 VAMCs in VISN 11.

•AHRQ (Doebbeling) funding to serve as the assessment center for the national AHRQ Healthcare Associated Infections (HAI) collaborative. Dr. Doebbeling and his team are working with the 5 HAI partners and their 34 hospitals to communicate, analyze data, and identify barriers and facilitators to implementation of tools and evidence.

•Follow up funding of $1.8M from AHRQ and CDC to spread the successful citywide MRSA reduction project in Indianapolis and beyond.

•Engagement in strategic planning and partnerships in system redesign and healthcare informatics with VA HSR&D, Office of Informatics, Patient Care Services and the national System Redesign program (10N).

Center investigators are involved in a variety of leadership and service activities including involvement in local facility strategic plan and care management committees, improvement activities at the VISN-level and national levels, such as involvement in the VA National Pain Management Committee, National System Redesign Program, Regional FIX Collaboratives, Office of Quality & Performance, Office of Informatics, and Patient Care

Services. Multiple Center faculty serve on the VA HSR&D Scientific Review & Evaluation Board, HSR&D REAP scientific review board, QuERI Research & Methodology Board, and VA HSR&D QUERI SDP Review Boards. Center investigators also advise organizations like the Institute for Healthcare Improvement, the Center for Medicare and Medicaid Services, and the American Heart Association. Center investigators have further refined and offer campuswide courses on Implementation Science and Patient Safety. Efforts in fellowship recruitment, development and educational programming have borne significant benefits.

We have dedicated a significant amount of time and resources to community building and training within the center. Examples of professional development workshops offered for faculty and staff in the past year include 1) relationship centered approaches to community building; 2) positive deviance and complexity science approaches to implementation; 3) lean six sigma; and 4) approaches to integrate decision support into workflow.